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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,835	01/30/2004	Joaquim Matias de Oliveira	0315-0149P	3847

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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,835

Applicant(s)

DE OLIVEIRA, JOAQUIM MATIAS

Examiner

Christopher Bottorff

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 introduces "a clasp" on line 7 and then refers to two distinct clasps on lines 7-8 and 9 respectively. This suggests that "a clasp" recited on line 7 is the same as one of the clasps recited on lines 7-8 or 9 respectively, or that three distinct clasps are present in the invention. In accordance with the specification and drawings, claim 1 has been interpreted as defining at each end of the drive bar a first clasp that is mounted to the drive bar and a second clasp that is attached to the wheel.

Claim 1 recites the limitation "the entire assembly" in line 14 and the limitation "the steering axle" in line 12. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Middler US 2,505,057 in view of Ohya US 5, 601,377 and Kobluk US 5,397,145.

Middler discloses a front wheel drive mechanism for a vehicle. The mechanism permits simultaneous displacement movement forwards and backwards and angular turning toward the right and the left. See Figures 1-3. The mechanism comprises a pair of supports 4 attached to the vehicle, a drive bar 6 positioned between the supports 4, and a sub-assembly 23, 24, 25, 26 mounted at each end of the drive bar. See Figures 1 and 4. Each respective sub-assembly includes a universal joint 23, 24, 25 having a fitting mounted on the end of the drive bar and a fitting attached to a wheel 10, 11 of the vehicle. See Figure 4 and column 3, lines 12-36. A respective rotational element 12, 14, 15 is fastened to the end of each fitting of the wheel into which are respectively fitted the ends of a steering bar 16. See column 2, lines 34-42. The steering bar 16 has a part at opening 18 in the center designed to accommodate a steering axle 19, one end of which is bent into an L shape and the other end of which is connected to a steering wheel 19a of the vehicle. See Figure 1. Since opening 18 must accommodate the circular perimeter of the steering axle 19, the center part of the steering bar 16

Art Unit: 3618

surrounding opening 18 includes a U-shape. The drive bar 6, sub assemblies 23, 24, 25, 26, rotational elements 12, 14, 15, steering bar 16, and steering axle 19 are attached to the vehicle by means of the supports 4 and with the wheels being attached at the ends of the drive bar 6 through the sub assemblies.

The drive bar 6 is a crankshaft bar with pedals 9 and hub caps 52 are attached to the wheels. See Figures 1 and 4 and column 3, lines 36-37. The supports 4 have holes at their lower ends to accommodate passage of the drive bar 6 and are separate pieces riveted or otherwise secured to the vehicle, which riveting renders the supports integral with the vehicle by attachment elements. See Figure 4 and column 2, lines 15-20. Also, the vehicle is a toy vehicle.

Middler does not disclose the specific universal joint structure defined in claim 1, that the shape of the rotational elements is an "L," or that the supports are secured to the vehicle specifically by screw attachment elements.

However, Ohya teaches the desirability of providing a universal joint with a first clasp 12, an opposing second clasp 12, and a cross link 14 having two legs fitted into respective openings 22 in the first clasp and another two ends that are fitted into respective openings 22 in the second clasp. See Figure 13. From the teachings of Ohya, providing the universal joint of Middler with a first clasp mounted on the end of the drive bar, an opposing second clasp attached to a wheel of the vehicle, and a cross link having two legs fitted into respective openings in the first clasp and another two ends that are fitted into respective openings in the second clasp would have been obvious to one of ordinary skill in the art at the time the invention was made. This would

Art Unit: 3618

provide a sturdy universal joint structure that effectively transmits torque between the drive bar and wheels.

In addition, Kobluk teaches the desirability of providing rotational elements 62, 66 with crank arms 62a, 66a that produce rotational elements having an "L" shape. See Figure 2 and column 3, lines 47-56. From this teaching of Kobluk, providing the rotational elements of Middler with crank arms that result in the rotational elements having an "L" shape, rather than the steering arm 15 arrangement of middler, would have been obvious to one of ordinary skill in the art at the time the invention was made. This would decrease the number of parts requiring assembly in the system and would utilize a structure that effectively turns the wheel when acted upon by the steering bar.

Furthermore, the examiner takes official notice that securing objects together with screw attachment elements was desirable at the time the invention was made. Securing the supports of Middler to the vehicle with screw attachment elements would have been obvious to one of ordinary skill in the art at the time the invention was made. Screw attachment means would effectively secure the supports to the vehicle.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Middler US 2,505,057 in view of Ohya US 5, 601,377 and Kobluk US 5,397,145 as applied to claim 1 above, and further in view of Howell et al. US 6,105,982.

Middler does not disclose that the drive bar is smooth with a gear to operate the vehicle by an electric motor drive system. However, Howell et al. teach the desirability of providing a vehicle front wheel drive mechanism with an electric motor drive system

Art Unit: 3618

130, 132 that drives a smooth drive bar by a gear 134. See Figure 4. From the teachings of Howell et al., providing the front wheel drive mechanism of Middler with an electric motor drive system that drives a smooth drive bar by a gear, rather than the crankshaft bar with pedals, would have been obvious to one of ordinary skill in the art at the time the invention was made. This would reduce the work required by the rider in moving the vehicle and would increase the riders endurance for riding.

Allowable Subject Matter

Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not the claimed keyways in combination with the further limitations of claim 1.

Conclusion

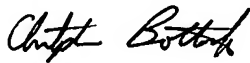
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Perkins, Spangler, Worthington, Green, Lohr et al., and Gu disclose vehicle arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

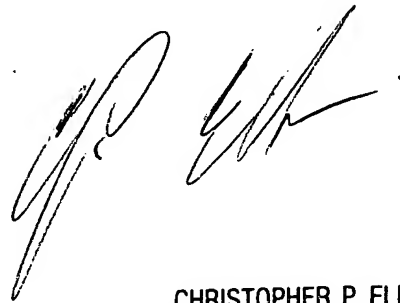
Art Unit: 3618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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